

Date: Sun, 10 Oct 93 04:30:52 PDT  
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>  
Errors-To: Ham-Space-Errors@UCSD.Edu  
Reply-To: Ham-Space@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Space Digest V93 #51  
To: Ham-Space

Ham-Space Digest                      Sun, 10 Oct 93                      Volume 93 : Issue    51

Today's Topics:

    Going to try QSO with STS-58, any suggestions???  
        Repeater in the Sky

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>  
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 8 Oct 1993 22:41:12 -0400  
From: swrinde!sdd.hp.com!math.ohio-state.edu!howland.reston.ans.net!noc.near.net!  
news.delphi.com!news.delphi.com!not-for-mail@network.ucsd.edu  
Subject: Going to try QSO with STS-58, any suggestions???  
To: ham-space@ucsd.edu

Hello,

    Im N3QBS and i am going to attempt a QSO this coming week with the  
STS-58 SAREX mission. I would appreciate any helpful suggestions, like  
how much power to use, what kind'uv antenna is best.

        Thanx alot,  
Ben Hackney N3QBS  
bhackney@delphi.com

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Date: Sun, 10 Oct 1993 02:11:48 GMT  
From: dog.ee.lbl.gov!agate!howland.reston.ans.net!sol.ctr.columbia.edu!caen!  
malgudi.oar.net!witch!amrad!ramays@network.ucsd.edu

Subject: Repeater in the Sky  
To: ham-space@ucsd.edu

Every Saturday afternoon the AMRAD ham club meets at a taco restaurant in Vienna, VA near Washington, DC. This weekend several club members conducted an experiment with the new AMRAD-OSCAR 27 payload. At the beginning of the 9 October 1642Z pass, N4USI at Tysons Corner, VA commanded the payload into the "bent pipe" FM repeater mode. This lets the bird repeat 145 MHz uplink signals down on 436.8. N4USI called CQ and was answered by Sandy, WB5MMB in Vienna, VA using a 25 watt 2 meter mobile transmitting into a 1/4 wavelength whip, and receiving on a 4 element handheld UHF Yagi. After a successful contact with Mark, N4TPY at Tysons, Sandy stood by for me to try a contact using nothing more than an Alinco DJ-580T and a Larsen dual band antenna, which is shorter than a 1/4 wave antenna on VHF. Although weaker, my signal did repeat through the satellite and I was able to hear the bird on UHF. And this was near the beginning of the pass. At times the signal was full quieting on the UHF downlink on the H-T.

Lyle, WA7GXD then called in from the AMSAT-NA Symposium in Arlington, TX, followed by N0ADI and KM4NZ (both named Chuck). Then we talked with Bill, W3X0. The last transmission through the bird on that pass was from Terry, WB4JFI, who was also using an H-T.

Often events like this are just discussed in technical terms. Today, however, I think a few of us remembered when we first saw someone talk to a spacecraft using a small handheld radio. It was back in the 1960's. His name was James Tiberius Kirk.

For more information on AMRAD, the Amateur Radio Research and Development Corporation, write to P.O. Drawer 6148, McLean, VA 22106 or call the AMRAD BBS at 703 734-1387.

73, Randy WA6VFC

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Date: Fri, 8 Oct 1993 23:58:37 GMT  
From: swrinde!cs.utexas.edu!math.ohio-state.edu!howland.reston.ans.net!  
spool.mu.edu!torn!utnut!utcsri!newsflash.concordia.ca!mizar.cc.umanitoba.ca!  
mona.muug.mb.ca!bwalzer@network.ucsd.edu  
To: ham-space@ucsd.edu

References <CEJGF4.HFr@freenet.carleton.ca>, <1993Oct8.005610.16062@muug.mb.ca>,  
<1993Oct8.134154.1945@ke4zv.atl.ga.us>utcs  
Subject : Re: Lindenblad Antenna

In <1993Oct8.134154.1945@ke4zv.atl.ga.us> gary@ke4zv.atl.ga.us (Gary Coffman) writes:

[...]

> (Bruce Walzer) writes;

>>I haven't tried it, but the Zapper as described in The Weather Satellite  
>>Handbook looks good for weather sat work. It's just a 2 element circular  
>>polarized beam pointing straight up.

>This sucks. Most of the gain is straight up where you don't need it,  
>and the pattern toward the horizon is full of holes. The majority of  
>a pass is spent below 45 degrees above your local horizon. You need  
>to concentrate the pattern there. The Zapper does the reverse. The  
>turnstile over a groundplane is similar. If you don't have the ability

[...]

Well yes, but for weather sat work you are usually most interested in the part of the continent near the place you live. The part of the pass that occurs above 30 degrees is what you want. In areas of high terrestrial noise (like the one I used to live in) something like the zapper or a turnstile is the only thing that would produce noise free images. When given the choice between a noisy image from horizon to horizon and a noise free one above 30 degrees sometimes you have to compromise.

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Bruce Walzer |Voice: (204) 783-4983  
Winnipeg MB |Internet: bwalzer@mona.muug.mb.ca  
Canada |AmateurRadio: VE4XOR  
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Date: 9 Oct 93 09:07:56 PST  
From: csus.edu!netcom.com!netcomsv!terapin!nlewis@decwrl.dec.com  
To: ham-space@ucsd.edu

References <CEJGF4.HFr@freenet.carleton.ca>, <1993Oct8.005610.16062@muug.mb.ca>,  
<1993Oct8.134154.1945@ke4zv.atl.ga.us>tcom  
Subject : Re: Lindenblad Antenna

gary@ke4zv.atl.ga.us (Gary Coffman) writes:

>In article <1993Oct8.005610.16062@muug.mb.ca> bwalzer@muug.mb.ca (Bruce Walzer)

>writes:

>>In <CEJGF4.HFr@freenet.carleton.ca> ae517@Freenet.carleton.ca (Russ Renaud) wri

>tes:

>>>Has anyone on this newgroup actually built a Lindenblad. How well does it  
>>>work for LEO satellites, such as the APT birds or digital hamsats?

>>

>>It worked not all that great for weathersat reception. The problem seemed to  
>>be periodic reflections from the ground. I would get regular noise bands  
>>across the image. It also seemed to be fairly subject to terrestrial noise  
>>pickup (ignition and/or powerline noise).

>

>>I eventually ended up with a turnstile with a large area of chicken wire as  
>>the reflector (something like 12 feet across (4 Metre)). This works very  
>>well for weathersat work. I get noise free images from about 25 degrees  
>>elevation and above. You really need the large reflector to prevent the  
>>turnstile from seeing the ground reflections. I have no idea how the  
>>turnstile-reflector that used to be in the Radio Amateur handbook worked  
>>with the specified tiny reflector.

>

>Well try the Lindenblad over the chicken wire. You might be pleased  
>with the result.

>

>>I haven't tried it, but the Zapper as described in The Weather Satellite  
>>Handbook looks good for weather sat work. It's just a 2 element circular  
>>polarized beam pointing straight up.

>

>This sucks. Most of the gain is straight up where you don't need it,  
>and the pattern toward the horizon is full of holes. The majority of  
>a pass is spent below 45 degrees above your local horizon. You need  
>to concentrate the pattern there. The Zapper does the reverse. The  
>turnstile over a groundplane is similar. If you don't have the ability  
>to use al-el tracking beams, about the best setup uses two 4 el beams  
>back to back tilted up about 30 degrees. All you have to do is line it  
>up for the pass and switch from one to the other when the bird goes  
>overhead. For passes that stay near the horizon, you just stay with  
>the beam pointing that way.

>

>Gary

>--

>Gary Coffman KE4ZV	"If 10% is good enough	gatech!wa4mei!ke4zv!gary
>Destructive Testing Systems	for Jesus, it's good	uunet!rsiatl!ke4zv!gary
>534 Shannon Way	enough for Uncle Sam."	emory!kd4nc!ke4zv!gary
>Lawrenceville, GA 30244	-Ray Stevens	

Yeah... but I've been using that "zapper" for about a year now with excellent results. There are regular lines of signal drop-out at about 5 degrees above the horizon, otherwise the antenna has performed very well indeed, especially considering how simple to build it is. Must admit though, my next project will be a J-pole...

-Ned

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End of Ham-Space Digest V93 #51  
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